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When you think of

Flexible Tubing

think of

U. S. Flex

metal hose for the industrial world

Every Type of Flexible Hose

Regularly made from Bronze, Steel, or from the alloy steels of the Stainless group. — Offering both types of construction — **Corrugated** Hose in U.S. FlexWeld and Supraflex Hose with a metal wire braiding for greater strength. — **Wound Hose** such as interlocked F-15 and Flex Lined for rugged work. Both types are precision made.

U. S. Flexible Tubing Co. Bartlett, Ill.

U. S. Flex Weld

Corrugated Flexible Tubing

This annular corrugated, weld-type hose of many uses is made in either bronze or steel. Metal wire braided, to handle high pressure, it has easy flexibility for tire, veneer, plastic and rubber mold presses. It is widely used for oil burner connections, and in fact anywhere a flexible piping connection is needed to handle liquids or gases at high temperatures without possibility of seepage. U.S. FlexWeld Steel enjoys great popularity due to its **economy, strength** and **durability.** In many conditions U.S. FlexWeld of Bronze, even though more costly than steel, is imperative. U.S. FlexWeld Bronze is a fine product. Reattachable Hi-Temp couplings may be used or if preferred, flanges or pipe nipple ends may be soldered, brazed or welded directly to the hose.

Bronze Hose (FWB-31)

- Steam Hose
- Vibration Dampeners
- Misalignment Connectors
- Press Opening Connections
- Oil Burner Hose
- An all-purpose hose for searching gases or liquids

Steel Hose (FWS-31)

- Oil Hose
- Lubricating Lines
- Ammonia Hose
- Fluids at high temperatures
- Dry or super heated Steam Hose
- General Utility Hose

U.S. FlexWeld Open Pitch for low pressure, moderate flexibility.

U.S. FlexWeld Close Pitch for low pressure, high flexibility.

U.S. FlexWeld Braided for high pressure with great flexibility.

Photograph shows the easy flexibility of U.S. FlexWeld Hose and illustrates the rugged wire braiding used to build up resistance to high pressures.

U.S. FlexWeld Hose with braiding removed to show uniform Bellows type corrugations.

Cross sectional cut of U.S. FlexWeld to show metal hose construction.

Female Hi Temp Reattachable Union.

Exploded view of Hi Temp Male Reattachable Coupling. (Note split ring)

Standard Flange brazed or welded directly to hose.

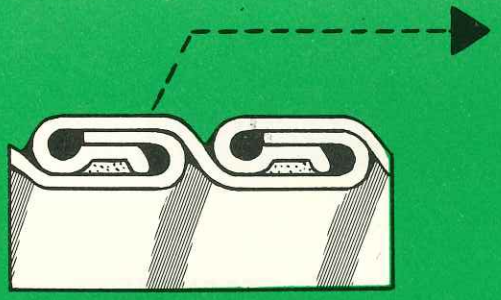
Brazed nipple end attached directly to hose.

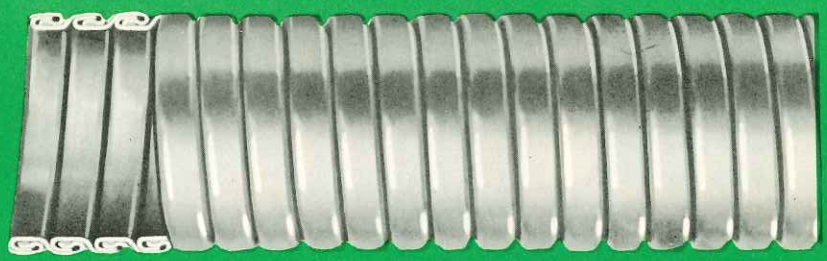
U. S. FlexWeld Specifications
BRAIDED HOSE

Inside Diameter (inches)	Outside Diameter (Nominal)	Easy Bend Radius (inches)	Burst* Pressure P.S.I.
1/4"	37/64"	5"	10,500
3/8"	49/64"	6"	7,500
1/2"	59/64"	7"	7,000
3/4"	1-19/64"	8"	5,000
1"	1-19/32"	9"	3,000
1 1/4"	2"	11"	2,000
1 1/2"	2-5/16"	12"	1,800
2"	3"	15"	1,200

* Burst Pressure for Braided Steel Tubing note: Burst Pressure of Bronze Tubing about 25% less.

U. S. Flex INTERLOCKED F-15 STEEL HOSE





Use F.15 Hose with Confidence on hard-to-handle jobs.

- **Steam — Oil**
- **Tar and Asphalt**
- **Road Oils**
- **Diesel Exhaust**
- **Tank Car Unloading**
- **Transformer Oil Filters**

Heatproof Reattachable Couplings in all pipe sizes can be furnished or for low temperature work couplings may be soldered on.

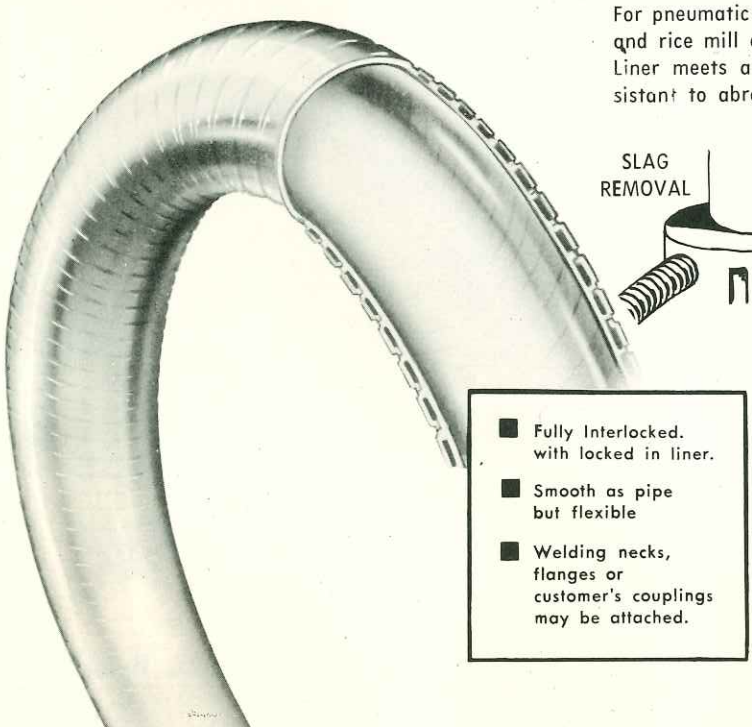
U. S. Flex F-15 Interlocked Hose differs from our corrugated types of hose in that it is not corrugated but "wound". Metal strip is wound upon itself by a machine designed to form the strip into a four-walled interlocking joint of great strength and durability. An expensive high grade asbestos cord is fed into a formed groove in the strip at the time of winding, making a pressure-tight hose that remains truly flexible under long service. Bronze is used mostly for water and saturated steam, while the less costly steel has the same physical properties for oil, gases or liquids that are not corrosive to steel.

Inside Diameter (Inches)	Nominal Outside Diameter (Inches)	Approx. Metal Thickness (Inches)	Nominal Inside Diam. of Bend (Inches)	Test Pressure P.S.I. Hydrostatic Straight	Bent	*Weight per foot (lbs.)
½	43/64	.017	8	750	...	.36
¾	63/64	.024	13	500	400	.75
1	1-15/64	.024	16	500	400	.97
1¼	1-17/32	.029	20	400	300	1.45
1½	1-53/64	.033	25	400	300	2.01
2	2-21/64	.033	28	300	200	2.60
2½	2-53/64	.033	32	300	200	3.21
3	3-⅜	.037	40	250	150	4.17
4	4-⅜	.037	52	200	75	5.48
4	4-½	.050	56	200	75	7.36
4	4-19/32	.060	60	200	75	9.22
5	5-⅜	.037	65	175	75	6.78
5	5-½	.050	70	175	75	9.09
5	5-19/32	.060	75	175	75	11.36
6	6-⅜	.037	78	150	75	8.10
6	6-½	.050	84	150	75	10.31
6	6-19/32	.060	90	150	75	13.50
8	8-½	.050	104	65	...	14.27
8	8-19/32	.060	112	75	...	17.80

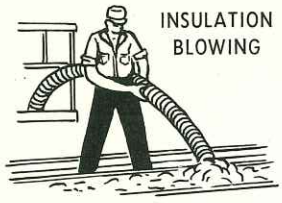
* Weights shown for Bronze; Steel about 10 per cent lighter.

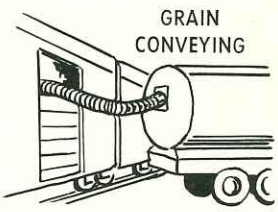
U. S. Flex LINED METAL HOSE

For pneumatic conveyor systems, handling dry materials and for grain, fertilizer and rice mill chutes, U. S. Flex Lined Hose with its smooth bore Stainless Steel Liner meets a growing demand. Easy to handle and with a liner highly resistant to abrasion, the smooth bore speeds transfer time amazingly.



- Fully Interlocked. with locked in liner.
- Smooth as pipe but flexible
- Welding necks, flanges or customer's couplings may be attached.





U. S. FLEX LINED SPECIFICATIONS

I. D. (Approx.)	O. D. (Approx.)	Bending Radius (Approx.)	Weight Per Foot Lbs. (Approx.)
2½"	2-13/16"	24"	3.5
3"	3-5/16"	25"	4.5
3½"	3-13/16"	26"	5.0
4"	4-5/16"	27"	6.0
5"	5-5/16"	28"	7.5
6"	6-5/16"	30"	8.5
8"	8-5/16	36"	10.5

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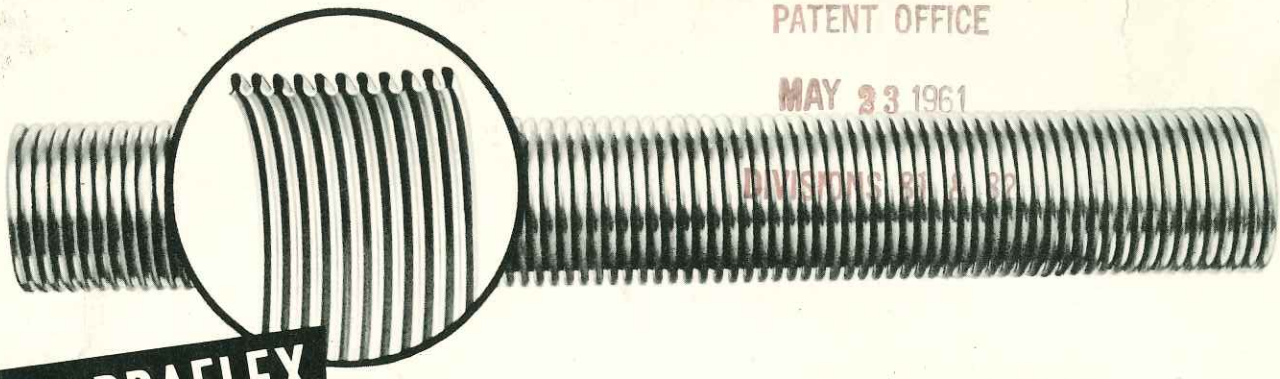


SUPRAFLEX

Vacuum Tight, Pressure Tight, Highly Heat Resistant, Exceptionally Flexible, Very Light Weight, Vibration — Proof, Non Corroding.

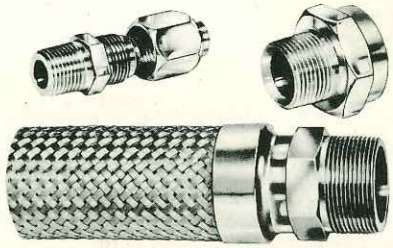
SUPER FLEXIBLE ALL STAINLESS STEEL HOSE

SUPRAFLEX spirally corrugated Stainless Steel Hose is electrically welded from thin gauge strip of a tough chrome nickel steel alloy of high tensile strength, requiring no sealing or packing for its tightness. By an ingenious, fully patented, manufacturing process, a perfect weld is obtained. The light wall thickness makes for a uniform amazing flexibility which remains throughout its entire length. Perfect for:—Weight Tank connections—conveying many corrosive liquids and gases—high temperature where Stainless Steel is a **must.** Regularly furnished with strong Stainless Steel wire braided cover.

DESIGN DIV.

SUPRAFLEX SPECIFICATIONS

Size I. D. Nom.	O. D. Braided Nom.	Bend Radii	Working Pressure Pounds per Square Inch Bare	Braided	Braided and Wire Wound
3/16"	.38"	3"	85	1500	2500
¼"	.45"	3"	80	1300	2250
⅜"	.60"	4"	45	1000	1750
½"	.75"	4½"	30	750	1200
¾"	1.07"	5"	20	500	800
1	1.32"	6"	15	350	600
1¼"	1.58"	7"	13	300	500
1½"	1.93"	8"	12	220	350
2"	2.44"	14"	10	150	250
2½"	3.00"	16"	DEPENDING ON APPLICATION		
3"	3.58"	18"			
3½"	4.10"	24"			
4"	4.60"	26"			



SUPRAFLEX FITTINGS

Couplings or Flanges are attached by means of Silver Solder or Nicro-Welding.

TYPICAL *U. S. Flex* APPLICATIONS

Almost all industrial plants find a ready and servicable use for U. S. Flex metal hose. Steel Mills, Rubber Mills, Chemical Plants, Soap Manufacturers, Oil Refineries, Food Process Industries, all have many uses for U. S. Flex Hose. The Road Contractor, the Heating Engineer, the Glass Plant Operator and Shipbuilding and Ship Repair Companies, each has a valuable use for our precision made product, made entirely of metal for the job where metal is particularly needed.

This bulletin only briefly indicates to you a few of the items we have to offer you. There are many metal hose companies; there are only a few making a broad and complete selection of flexible metal hose. While we may not be the largest of this capable group, we believe that our size has its compensations, as we are versatile and alert to the importance of our customers' wishes. Your inquiries will receive prompt attention.

U. S. Flexible Tubing Co. Bartlett, Ill.

Printed in U.S.A.

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